

than any other railway; in requiring no levelling or road-making; in adapting itself to all situations, as it may be constructed on the side of any public road on the waste and irregular margins, on the beach or shingles of the sea-shore,—indeed, where no other road can be made; in the original cost being much less, and the impediments and great expense occasioned by repairs in the ordinary mode, being by this method almost avoided.

“A line of railway on this principle was erected, in 1825, at Cheshunt, in Hertfordshire, chiefly for conveying bricks from that town, across the marshes, for shipment in the river Lea. The posts which support the rails are about ten feet apart, and vary in their height from two to five feet, according to the undulations of the surface, and so as to preserve a continuous horizontal line to the rail. The posts were made of sound pieces of old oak, ship timber, and in *a*, the slot or cleft at the upper ends of the posts, are fixed deal planks twelve inches by three, set in edgeways, and covered with a thin bar of iron, about four inches wide, flat on its under side, and very slightly rounded on its upper side; the true plane of the rail being regulated or preserved by the action of counter wedges between the bottom of the mortices, and that of the planks. By this rail, on the level, one horse seemed to be capable of drawing at the usual pace about fourteen tons, including the carriages.

“The late Mr. Tredgold, whose opinion in matters of this nature will ever be entitled to attentive consideration, expressed himself very favourably to this invention in his *Treatise on Railroads and Carriages*:—“We expect (he observed) that this single railroad will be found far superior to any other for the conveyance of the mails, and those light carriages of which speed is the principal object; because we are satisfied that a road for such carriages must be raised so as to be free from the interruptions and crossings of an ordinary railway.”

ART. VI.—*Memoria sul Rinascimento e stato attuale della Medicina in Egitto, del D. G. E. MINO.*

Memoir on the Regeneration and actual state of Medicine in Egypt—Translated from the Italian of J. E. MINO, Doctor in Philosophy, Medicine, and Surgery. Leghorn, 1838.

(For the Journal of the Asiatic Society.)

We are indebted to Mr. W. H. CAMERON for a copy of Dr. MINO's pamphlet, which was printed in Europe for private circulation, and contains many details worthy the close attention of all who take interest in the progress of general as well as Medical education.

Dr. MINO's essay affords full evidence of the failure of CLOT BEY's system for the introduction of Medical science into Egypt. The causes of the failure are moreover explicitly and palpably exhibited. There was no penury of means, no paucity of teachers; all that the most princely munificence could place at the BEY's disposal he was permitted to command without controul. Still the tree produced no fruits, and this simply, because it was planted at the wrong end. They commenced where they should have terminated; namely, by the erection of a School taught in the vernacular language. It is difficult to conceive a more ludicrous attempt than that to teach me-

dicine to Arab pupils through European Dragomans, themselves destitute of Medical knowledge. Far different would the result have been, had the admirable principle of the Normal schools of Prussia and France been adopted in the first instance—had CLOT BEY for the first four years contented himself by educating thoroughly a few clever youths through the medium of *his* language, and had he then employed them to impart, in their own tongue, the knowledge they had themselves acquired.

Such is the system which silently and unprofessedly has been adopted in the CALCUTTA COLLEGE with a success which defies denial. If but few pupils have been educated, the completeness of their education is unquestionable; and each is now ready to be made the means of diffusing his own knowledge among his countrymen in the only dialects they understand.

In September next the Medical College of Calcutta ceases to be *exclusively* an *English* School, and will embrace, with its original Normal section, a secondary vernacular class, receiving instruction, through the Hindoostanee language, from native teachers, and numbering over 150 pupils. Let this class but prosper, as we doubt not it must, and then indeed we may triumph in accomplishing the inappreciable object of placing medical assistance practically within the reach of all classes of the Native population. Similar institutions will then spring up in all the great provincial cities, and thus to every village and hamlet will radiate the light of the most beneficent science within the acquisition of man.—EDS.

Prior to the reform introduced by the Pacha and Viceroy MEHEMET ALY, medicine was in the same state in Egypt as in other parts of the Levant; it was, namely, in a state of absolute infancy, or to speak more accurately, in one still inferior to infancy itself. Not possessing schools or masters, books or dissecting-rooms, nor any other place of public or private instruction, the natives who devoted themselves to the care of the general health, following corrupt traditions, practised a blind empiricism which, mingled with a certain superstitious charlatanism, was more adapted to disseminate death, than to prevent the premature diminution of lives. Foreigners who there practised medicine were generally persons destitute of science and of conscience, and abusing the unfortunate licence given to all of calling themselves *Physicians*, they simulated the character that they possessed not, and thus profaned the sublime priesthood of Hygea, to the incalculable detriment of the wretched. The true and clever physicians, who for merit and legal qualification could be entitled such, in Egypt were very few, and often disregarded and forgotten; as not unfrequently happens in unpolished and illiterate nations, to the truly learned placed in counterposition to the charlatan.

Although the French claim for themselves the work of the regeneration of medicine in Egypt, it is undoubted, nevertheless, that the glory of the enterprise, whatever it may be, is due to the Italians. In truth, since Egypt began to breathe, which was about the year 1811, when MEHEMET ALY completed his sanguinary struggle with the

Mamelukes—a year that signalized the commencement of new military reforms—the first roots, so to speak, of the medical laurel were planted there by Doctors MENDRICI (Genoese), RAFFAELLI (Leghornian), MARTINIL (Pisan), DEL SIGNORE (Piedmontese), CUNHA (ditto), KARACUCCI (Cattarese), MARNECHI (Piedmontese), GENTILI (of Ancona) CERVELLI (Pisan), MORPURGS (of Trieste), DURANDO (Piedmontese), CALUCCI (Neapolitan), LARDONI (Roman), VERNONI (Piedmontese), and several others, all Italians, too numerous to be mentioned ; whereas in that long period the French could reckon no other countryman of their's than a certain M. DUSSAP, Apprentice-Surgeon.

Nor should, on the contrary, all the French professors be cited who followed the memorable expedition of 1798, in as much as those were days of battle, and those personages, albeit highly eminent, had no opportunity of mixing as much as was necessary with the aborigines, of coming in contact with the native physicians, and of diffusing, by word and example, the salutary precepts whereof we intend discussing. In fact, after their departure no vestige remained of their knowledge ; we mean, not a school, not a scholar, no prevailing system, no sensible sign was to be discovered, that denoted any tendency to the destruction of the abominable empire of empiricism and imposture.

The light of true knowledge illuminates in the end even the dimmest and most near-sighted. Hence, notwithstanding their deeply-rooted and numberless prejudices and antipathies, the Arabs finally discovered the difference that existed between European doctors and those quacks who for so long a period had usurped among them the name and attributes of physicians.

MEHEMET ALY above all, who was then devising a bold, political reform of the state which had been placed in his hands by fortune and courage, convinced by experience, and by the dint of warm, benevolent suggestions (among which held the foremost place those of the CHEV. DROVITTI, Piedmontese) perceived the inestimable service that so grand an enterprise could derive from the Art of Healing suitably professed, and delayed not to make the talent of the European physicians contribute to his mighty undertaking.

In the year 1822 Doctors MARTINI, DEL SIGNORE, CINBA, and some others, were charged by him with the erection at Abou-Zabel of an Hospital, modelled and managed after the best European establishments of its kind, and were directed to lay before him a plan of a general systematic arrangement of the Medical Service in the Viceroyalty. This is in reality the era of the regeneration of medicine in Egypt ; and if the foundations of it were laid by Italian hands, we must legitimately conclude that the glory of having re-produced medi-

cal studies, and the practice of medicine in Egypt, exclusively belongs to them.

Nevertheless it is undoubted, that scarcely had the Italians taken the first step in the beneficent restoration (1824,) than the eminent Doctor CLOT, a Frenchman in the Viceroy's service as Physician and Surgeon-General, succeeded, with several other sanitarian officers, countrymen of his, in completing the fabric thus commenced ; and we are far from denying him our meed of well-merited praise, and avow and acknowledge with pleasure the very important services rendered by him to the science and to the country. But he *completed*, and did not *commence*, the work : this is what truth compels us to affirm distinctly. Especially as in all the improvements introduced by him, his designs were never disunited from those of MARTINI, Inspector-General of the Military Medical Service.

Au reste, when we allude to the regeneration of medicine in Egypt, we are very far from understanding that the science is as flourishing and diffused there as the phrase may seem *prima facie* to imply ; for although there exists a remarkable difference for the better between the past and the present, it is undeniable, nevertheless, that the new plant has not yet produced that fruit which might have been expected from it. A mournful fact, but no less authentic, as will evidently appear from the particulars we are about to enumerate.

Having premised these brief observations on the historical part of the subject (for the correctness of which we ourselves carefully vouch, having been not only witnesses, but a party of what we relate) we shall now proceed to lay down, in separate paragraphs, those special points, from the assemblage of which results the actual state of medical knowledge in that country.

The establishment of an Hospital at Abou-Zabel (a village about twelve Italian miles to the north of Cairo, on the borders of the desert of Kanka) was, as we have stated, the first countersign of the regeneration of medical knowledge in Egypt.

Beside the salubrity of the air, and the abundance of water (although the latter is somewhat brackish), and all other conveniences requisite for the erection of such institutions, all wonderfully concurring at Abou-Zabel, this spot was selected especially because being close to the review-field of the new Egyptian troops, it might readily serve for the care of the invalids ; and the Government would thus have before its eyes a practical example of the advantages that its armies might in time derive from that sort of sanitary establishments.

The edifice was erected A. D. 1822 on the ruins of ancient cavalry barracks : it was completed six years after (1827) when Dr. CLOT,

recently charged with the head management of the Sanitary Department, made it the object of his most ardent solicitude.

The Hospital of Abou-Zabel, which surpasses in size, as it does in priority of existence, all similar buildings subsequently erected in Egypt, is a perfect square of 150 metres, every side consisting of a double row of saloons, divided by an intermediate corridor forming their entrance. There are thirty-two halls, each containing fifty beds arranged in a double row. The saloons are exceedingly lightsome and well ventilated, being illuminated each by sixteen large windows, which however does not debar the deplorable effects that result from the reunion of an immense number of sick in a single edifice—a constant proof that smaller Hospitals are preferable to extensive ones in all quarters of the globe.*

The area enclosed within the four sides of the building has been appropriated to the use of a Botanical Garden. In the middle of it is to be found a square house containing the Dispensary, Dissecting Room, Baths, Kitchen, a *Sakia*, or draw-well, and other ordinary complements of an Hospital.

The Botanical Garden is subdivided into two sections, containing an exact repetition of the identical plants. The first is appropriated to the study of Linneus' system, and the other to that of Jussieu's method.

The edifice is surrounded on three sides by a high wall, about a hundred paces distant from the body of the building. The vast tract of land intervening between the one side and the other is covered with trees and divers other plants, which abundantly supply fruits and other nutritious vegetables; it also offers a commodious promenade to the invalids. This exterior wall answers the purpose of *isolating* the establishment—an inestimable advantage for various reasons, especially in countries like Egypt, frequently infested with contagious maladies.

Although the Hospital of Abou-Zabel is chiefly intended for the

* We recommend this passage to the attention of the Municipal Committee, and of the projectors of certain Hospitals said to be intended for Calcutta. The new Clinical Hospital just completed on the grounds of the Medical College will contain *eighty* patients. It is a square building on arches, 74 feet square, divided into three Wards with two intervening Corridors. The clear length of each Ward is 70 feet, the breadth 20 feet, the height 18 feet, and the Corridors each 70 feet long, 12 feet broad, and 18 feet high. The rooms are fully ventilated by lofty windows, doors, and spiracles. *This building has cost but 8,000 Rs.* In the plans adopted by the Municipal Committee an Hospital for *one hundred and twenty* patients is to cost 97,000 Rs., another plan for an Hospital for *twenty* patients is sanctioned by the Committee at 34,000 Rs. This may excite a smile, but let us not be unreasonable. It is peradventure wise to lodge the perishing pauper with the magnificence of a prince.—EDS.

military, still the indigent sick of all the surrounding villages obtain there gratuitous succour and advice.

The internal government of the Hospital, and in general all its various departments, were scrupulously modelled after the Hospitals of Europe.

The utility of the establishment in question being rapidly understood, with that evidence which is so necessary to influence the indolent spirits of the Easterns, other minor Hospitals began to be gradually instituted in various quarters of the country, there being at present six, beside several Infirmeries; viz. one at Cairo, named *Esbequich*; one at *Kassr-el-ain*, for the alumni of the elementary School-house; a third at *Furrah*; a fourth at *Damietta*; and the fifth and sixth at Alexandria for the army and navy troops.

Prior to the year 1834, there was no Hospital specially intended for non-military patients. The decree issued about that period by his Highness may be considered an interesting piece of novelty, because one of the Alexandria Hospitals, which had been originally destined for the navy, was then thrown open indiscriminately to all, whether Arabians or Christians, or of any other persuasion, as well subjects as foreigners, if destitute of means.

Although that was perhaps the effect of the wise REFORMER'S policy, it was nevertheless a remarkable token of progress, when we reflect on the antipathy that had for the past divided the Mahometans from the professors of every other creed.

With regard to the Hospital of Abou-Zabel, and the two others of Alexandria, especially that denominated *Ras-el-tim*, it can be affirmed, without flattery, that they are in a most satisfactory state at present, and that they might be honorably compared with many similar institutions in Europe. The others, mostly the work of Arabs, and imperfect copies of the former prototypes, still retain the impress of antique barbarism, and to them may be justly applied the words of the divine Poet:

“ Non ragioniam di lor, ma guarda e pass.”*

Following the example of Constantinople, Smyrna, and other cities of the Levant, the European powers that hold commercial intercourse with Egypt established an Hospital in Alexandria for their respective subjects, with this difference however, that while in the above named cities each European nation has its own Hospital apart, in Alexandria, considering the minor number of European strangers, they deemed one Hospital, to be managed with common funds and laws, would

* “ Let us not speak of them, but look and pass on.”—DANTE.

amply suffice promiscuously for all. The election of the Physician and other officials for this institution, is yearly made by the Consular body and other contributors by the majority of votes. Extreme is the neatness and regularity of attendance introduced into this Hospital, and we are gratified in being enabled to bestow our well-merited meed of praise on the directors of it, while we, at the same time, submit our hope, that in the election of the Physician, they may for the future value more than they have heretofore done, the intrinsic merits of the individual, and pay no regard to a spirit of vain nationality, which so often proves fatal to its unfortunate inmates.*

Regarding those infected with the plague, we shall have occasion to allude to them when speaking of the Lazarettos, in the important matter of sanitarial treatment.

The rare advantage of the Abou-Zabel Hospital induced Dr. CLOT, Physician-General, to propose to the Egyptian government the institution of a Medical School for the formation of Native alumni, capable in time of succeeding the European doctors, on whom depended the medical management and attendance both of that head Hospital and of the other Infirmaries, as well as of the army. The body of European physicians then practising in Egypt, fortunately presented the number of Professors requisite to occupy the various chairs of the intended institute, and Dr. CLOT wisely opined that so favourable an opportunity should be availed of to attain with facility and economy the object he had in view. The necessity of such an establishment was too evident for the Egyptian government not to second the proposal of the French Physician-General; but there were mighty and various obstacles yet to be surmounted.

* It would not be here inopportune to make mention of a small Greek Hospital, if it were completed, or worthy of observation. Hence we omit enumerating it among the Hospitals of Alexandria. Nevertheless we cannot refrain from commending the noble efforts of the CHEV. FOSSIZZA towards its erection and support, in which he has not yet relaxed.

Apropos of the above mentioned individual, we feel pleasure in giving a brief account of his merits and influence in Egypt.

The CHEV. FOSSIZZA, a wealthy Greek merchant of Mezzovo in Albania (Epirus), and now Consul-General of his Majesty King Otho, is one of the most distinguished personages who are about the illustrious Reformer, MEHEMET ALY, on account of the high degree of confidence he enjoys, in as much as being wholly devoted to his wishes, he succeeded so well both in the administration of the state, and in the most difficult political circumstances of the Government, in comforting him, by seconding all his cogitations and devices, as well as by assisting him with his vast commercial knowledge in his traffic computations, and so by reviving in an extraordinary manner the home as well as the foreign trade; moreover, he is still more commendable on this account, because he uses his interest with the Pacha to forward the distribution of his princely munificence among the meritorious. Hence the CHEV. FOSSIZZA is generally esteemed by the Europeans as well as the foreign Consuls in Egypt.

The first obstacle was the impossibility of finding *elevés* who could speak French, Italian, or any other European tongue. This could not be overcome but through the means of interpreters, who might convey to the scholars the sentiments of the Professors. But in order that the interpretation of such mediums might be correct, they themselves should indispensably have been initiated in the science they were to convey: whence the interpreters were necessarily to be instructed prior to the *elevés*.

The second was to introduce among the Arabs the study of anatomy, which involved the dissipation of their religious prejudices, as to them it appears an enormous sacrilege to apply a dissecting knife to the remains of the defunct.

The third, finally, was the deficiency of books, instruments, and that multifarious assortment of other implements, which are essential for the first opening of such an establishment among a barbarous and unpolished people, like the Egyptians.

All these difficulties, albeit numerous and intricate, disappeared before the zeal of Dr. CLOT, and of the head Physician and Inspector-General, Dr. MARTINI; and in a short period Egypt saw opened at Abou-Zabel a School of Medicine, which, although imperfect like every other infant institution, resembled Aurora, the forerunner of light, amidst the darkness of deep and disgraceful ignorance.

The first obstacle alluded to was surmounted by appointing various interpreters, sufficiently instructed in the oriental languages, and not totally unacquainted with medical pursuits. In the mean time, however, so as not to be perpetually obliged to have recourse to their assistance, which was essentially supplementary, a course of European languages, especially French and Italian, was commenced. Signor UCELLI (Piedmontese) and Signori RAFFAEL, AUTHORI, SAKAKINI, and ZACCARA undertook and supported with honor this double duty of interpreting the lectures of the Professors, and of instructing the Arabian alumni in the European tongues.*

The second impediment was overcome by the firmness of the Government, and its well known indifference for religious opinions, as well national as foreign. For by suggestion of the European doctors the most influential Sheiks were informed that the opening of the dead for the benefit of the living, in place of being brutality and cruelty as they would fain have it believed, was a pious and philanthropic act; and they were shown that the Pacha in this respect had no intention of being annoyed; and so shortly disappeared all objections

* The respectable Signors should have commenced by studying medicine themselves.—EDS.

on that score, in so much that cadaverical dissections are now performed in Egypt with the same facility as in our own country.

The third difficulty likewise the Government remedied, by liberally supplying, at an enormous outlay, a splendid assortment of books, anatomical figures, surgical instruments, and every thing else requisite for the institute; whence we may affirm, without exceeding the truth, that in this it was rather extravagant, than parsimonious. A proof of this may be the Venus, made with wonderful nicety in Florence, by the chisel of the renowned CHEV. VACCA BELLINGHERI, and purchased for the Abou-Zabel School at the enormous sum of 3000 dollars and upwards.*

Thus surmounted the impediments that obstructed the accomplishment of this beneficent design, the next step was to regulate the course of studies, and to nominate the Professors. These operations had the following results.

1. Signor GACTINI, Professor of general, descriptive, and pathological Anatomy, and of Physiology.
2. M. BERUARD, of private, public, and military hygiene, and legal Medicine.
3. M. DUVIGNEAU, of Pathology, and internal Clinics.
4. M. CLOT, of Pathology and external Clinics, Operations, and Midwifery.
5. M. BARTHELEMY, of Materia Medica, Therapeutics, the Art of Formulas, and Toxicology.
6. Signor CELESIA, of Chemistry and Physics.
7. Signor FIGARI, of Botany and Horticulture.
8. Signor LASPERAURA, of Anatomical and Pathological preparations.

These were the Professors of the Abou-Zabel School at its first opening; but there were shortly after some remarkable changes which we deem superfluous to relate. We must however, for justice sake, remark, that besides the distinguished Dr. CLOT, the two Italian Professors CELESIA and FIGARI, (the latter a worthy pupil of the late CHEV. VIVIANI), among the other above named, acquired especial esteem, and marked encomiums in the discharge of their duties.

We should be too prolix and fastidious, were we to enter into a detailed account of the various scientific improvements introduced into this School, and especially regarding the translation and explanation of the lectures, through the medium of the interpreters. We shall nevertheless observe, that at the close of every year a public examination was appointed to be held, at which the Arabian alumni should

* About 6500 Rupees.

give a trial of the progress they had made, in the presence of the first authorities, as well in their medical, as in their philological studies.

The result of those examinations proved, what will not surprise any wise judge of such events, viz. that the progress of those classes, notwithstanding the immense effort of the promoters, was not by any means remarkable. In truth, with the exception of a few lads, who succeeded in a middling degree, the mass of the scholars drank very shallow of those new and unusual sources of science. It would be long to enumerate all the causes of such disgusting deficiency individually, but we will note the chief ones: 1. The advanced age of the majority of the students. 2. The privation of those elementary and primary principles, that are a step to higher branches. 3. The fatal intricacy of intermediate explanations. 4. Arabian indolence and listlessness, which every now and then transpire in the character and habits of that race. 5. The secret and powerful influence of prejudices, which although sometimes apparently obviated, never cease by degrees to shoot forth. 6. In fine, the bad selection of some of the teachers; a notorious fact, which we in vain would attempt to conceal.

Dr. CLOT added lately to this College a collection of objects connected with Entomology and Ornithology, aided by the rare abilities of the Turinese naturalist, Signor LOVIS REGEO, who has acquired an honorable reputation both in Egypt and elsewhere, which we are happy to proclaim, for such and other similar collections forwarded abroad.

The nature and brevity of this memoir will not permit us, as we would wish, to give a minute account of the glorious labours of the illustrious young man just alluded to, in congregating the materials of such exquisite collections, as well of the extraordinary perfection for which his works are distinguished, considered even in the light only of mechanical preparation: we will not however for justice sake, and to satisfy a praiseworthy love of country, omit to state, that not only CLOT BEY, but also all the other professional foreigners that have visited Egypt, or examined the works of Sig. REGEO, unanimously avowed, that they had never witnessed things of a similar description more accurately and skilfully conducted; and they readily bestowed on him, even through the medium of the public journals, praise so much the more flattering, as it was less suspicious, being spontaneous and remote. Hence although Sig. REGEO be, like all other men of merit, extremely modest, an enemy of every species of intrigue, and incapable of wishing to advance but through his own fatigue and knowledge, the Egyptian Government nevertheless always held him in due esteem, and after retaining him in divers ways employed

under CLOT BEY, it decorated him at length with the title and degree of Professor attached to the Museum of Natural History, an office with which he is still invested, with general satisfaction, uniting as he does to a brilliant genius an excellent heart, that renders him acceptable and dear to all his acquaintance and friends.

Besides the alumni educated (well or ill) in the Abou-Zabel College, the Pacha sent to Europe, especially to France, about one hundred Egyptian lads, with the view of thus diffusing the enlightenment and civilization of this era throughout his dominions, and of acquiring at the same time the reputation of a prince who was a philosopher, a philanthropist, and a munificent patron of the sciences. The result of the second experiment was not much happier than that of the first, as the youths did not take back with them that useful assortment of science that was expected; so that with the exception of a scanty number, the major part of them afforded to the Pacha no great source of congratulation for the trial he had made.

Vaccination was introduced into Egypt about the year 1824, through the beneficent designs of the venerable CHEV. DROVETTI, whose continual traits of philanthropy resemble so many globules impregnated with vitality, which animate and give life to whoever receive them. With the approbation of his superiors, he formed a commission consisting of two Italian physicians, MASSARA and CANI, and of one Frenchman, M. DUMAS, for the purpose of propagating in the interior of the country the practice of so precious an invention. This commission, provided by the never-sufficiently commendable CHEV. DROVETTI with all the necessaries, encountered in the discharge of their duties immense difficulties and perils, so much so, that in the province of *Menoufic* a general insurrection was very near breaking out, as the Arabs, especially the women,* supposed that the incisions made on the arms of their infants, far from being a salutary antidote, were a political stratagem of the Pacha, whose object was to impress on the persons of his subjects an indelible mark, so as afterwards to be enabled to distinguish and kidnap them with greater facility into the military levies, and other raisings of men for the accomplishment of his vast enterprises; so that after long and fruitless attempts the vaccination emissaries were compelled to desist and give up all hopes of success; and thus among the Arabs became extinct the practice of JENNER'S antidote, which is doubtless one of the finest gifts bestowed by Providence on mankind in modern times. This is a great fatality for Egypt, where the small-pox frequently causes mortality in the extreme.

* It is calculated that the proportion of women at present in Egypt, is a third greater than that of men.

H. H. MEHEMET ALY continues however to have his children vaccinated, as also the new born infants belonging to his Harem and household, which is also the practice of the *grandees* around him.

The first and greatest service that was to be rendered to Egypt by medicine, was to defeat the fatal malady that for ages had taken up its abode there, and which besides the internal havoc that it often creates in the country, threatens also to invade the European shores, and so causes the inhabitants of the latter to live in perpetual dread of such a scourge. We must however unfortunately confess that not even in this point have the medical innovations introduced into Egypt corresponded to the necessities and expectations of the promoters.

The ends to which sanitarial prescriptions should tend in countries which like Egypt contain the germ of the plague, are principally two: the first is, to destroy, if possible, the principle or vital spark of the evil, or to restrict at least as much as possible the consequence of its development: the second, to protect the country from the introduction of external pestilence. Now it is undoubted that neither of those ends has been attained by the local government through the medium of the sanitarial institutions still flourishing in that country; so that if the merit of the design or (as it is termed) of the *good intention* be abstracted, the world and the nation owe little to the promoters of those institutions.

It was only in the beginning of 1833 that the Pacha contemplated the establishment of a Sanitarial Board, the centre of which he made a so-called Consular Committee, consisting, as its name sounds, of the European Consuls accredited by his Government. The representatives of civilized nations were thought to possess an abundant store of knowledge for the utility of so important an institution; but it would have been a wiser plan to seek such knowledge, in itself *particular*, in persons of the trade; and in truth, with one or two exceptions,* the others had not the slightest idea of the topics they undertook to discuss; thus this radical defect soon ruined the work they commenced. So much the more, because to the *relative incapability* of the superiors was soon added the *absolute incapability* of the subalterns selected to fill up the various situations of the new Egyptian sanitarial *iatrarchy*.

But the height of misfortune was, that the physicians specially devoted to the Sanitarial Committee, who with their counsels might

* It is almost superfluous to observe that one of those exceptions is the Chev. and Councillor ACERHI, a man well known for his extraordinary talent and profound knowledge. Let it however be remarked, that as soon as he perceived the impossibility of attaining any useful result, he abstained from taking part in the new Consular Committee, so as to save himself from all responsibility.

have corrected and moderated, at least in a great measure, the lamentable consequences of such primary sources, were in accordance (we grieve to advert to it) with the rest of the ill-compacted edifice, and were absolutely unsuited for the high and important office they undertook.* The provisions therefore that emanated from their Committee, and were executed by their subalterns, were, we regret, seldom useful, and often noxious to the State.

To commence from what we stated to be the first scope of the sanitary discipline with regard to an *endemic* disease, nothing was done to improve the salubrity of the country, if we except the prohibition, often eluded, of interring corpses in the interior, a device undoubtedly beneficial, but insufficient by itself to cut off the intrinsic *fomites* of the evil, as was required. In a recent little work on the *Bubonic plague* of the Levant, we explained the causes to which, in our opinion, Alexandria and Lower Egypt owe their deplorable privilege of having been for ages the chosen nest of that malady, and we will readily avow that many of them are such as to surpass perhaps the limited efficacy of human remedies. Nevertheless it is undeniable, that if by a well understood system of sanitary regulations, constantly acted up to, a part at least of those causes had been obviated, the awful scourge would either have less frequently desolated the country, or its consequences would have been less disastrous. Now what has been done by the Alexandria Committee in order to achieve so beneficial a result? We have already stated, either nothing whatsoever, or too little to produce any fruit? And we might easily demonstrate it with examples, were we not disallowed by brevity from entering into minuter details. But not wishing our assertion to remain totally unproved, we will observe: 1st. That if human corpses be interred by day without the walls, the carcasses of camels, horses, asses, and of that numberless group of minor quadrupeds which at present people Egypt more than the bipeds, are shamefully allowed to rot in the inside streets and squares. 2dly. That dung, rubbish, filthy water, and similar off-scourings of the city always remain in the spot they happened to fall on, without any passage or exit to drain off from the habitations of the living—a most shocking inconvenience, that would alone suffice to render any climate naturally wholesome and pure, murderous to the last degree. 3dly. That neither the education, nor the condition of the people, properly so-called, being improved for reasons superior to the will of the Government, the dwellings or rather the huts of the Arabs continue to be real dens of wild beasts, squalid, filthy,

* Now however Signor GRASSI commences to distinguish himself with repeated observations; he is the chief doctor attached to the above named Committee.

and abominable. 4thly. That the identical groups of beggars now wander through the narrow and crooked lanes of the city, destitute of ventilation, who used to stray through them before, and who are the ordinary receptacles and most fatal propagators of endemical and contagious diseases. 5thly. That the necessary government regulations regarding food are still wanting, while that which is exposed to sale is generally another abundant source of *epidemical* maladies.

Having premised these deplorable truths, passing now to the other object of sanitary regulations, namely, that of protecting the country from *foreign* pestilence, we have to lament on this point also equal, if not greater blunders, quoting as simple instances of proof, 1st. The bad construction of the Lazarettos*, and especially of that of Alexandria, the first of his Highness's, which has nothing in it commendable, whether we speak of its site, or of the minutest particulars of its interior management and medical administration—a truth that we demonstrated in a previous work, addressed to H. E. BOGHO BEY, on the 15th December 1833, and which is gradually confirmed by daily experience. 2dly. The inconsistency of repulsive measures, that are every now and then adopted, such as, for example, to permit a free ingress on the land side to persons arriving from regions actually infected with the plague, and at the same time to use rigour (we know not if more barbarous or ridiculous) with the vessels and persons that arrive on the sea-side, while they reach from the remotest places, even solely *suspected*. 3dly. The little or no exactness wherewith the sanitary orders, whether well or ill decreed, are managed: because in consequence of the deep ignorance of the sanitary officials, especially the subalterns, their indifference and want of conviction, there is scarcely ever a case in which the observance of a salutary precept is not accompanied with a greater or less violation of another equally mighty, which abundantly preponderates the utility that might have been expected from the former: thus, for example, when a disorderly gang of beastly Arab keepers are compelled to insulate an infected object, to cleanse a house, to air tainted cloths, &c., we may affirm, without fear of being deceived, that in such emergencies directed to avoid contact, the latter almost always increases in place of diminishing, as was the intent of the order.

But we should be too prolix, were we to discuss more fully this subject. The sketches we have given will suffice.

* The Lazarettos of Europe are doubtless powerful means to prevent the diffusion of *exotic maladies, originally contagious*, depending on multiplied *contact*: but those of Egypt are little serviceable for its periodical and *endemical* diseases, and much more when the Lazarettos are so shockingly situated, ill-managed, and badly laid out.

Although the collection of facts by us adduced appear to prove that the Egyptian government has recognised in principle the social importance of medicine, we grieve to be obliged to add, that the practice of this science in Egypt is still carried on destitute of any check from Government ; so that now-a-days, as in those of the thickest barbarity, any body may there entitle himself *Doctor*, and be reputed such, without the superintendence of any superior authority to impede the deplorable results that may ensue. The only examination that is usually made in such matter regards the verification of the title or patents for those that aspire to any post in the Medico-military department, and this examination itself is extremely mild, much more than justice allows ; but with regard to the public practice of the science, it is, we repeat, free of every obstruction. There is no necessity of inculcating how the advantages of humanity and the decorum of the medical body itself demand, that a prompt and peremptory remedy be applied to so dangerous and disgraceful an error.

European physicians actually practising in Egypt (almost all employed in the army) exceed the ordinary necessity of the country, there being about seventy, not including apothecaries, who also abound. If those persons in place of blindly and systematically professing the opinions of their Masters, belonging as they do to so many different nations, had first well studied the country, so as to modify the precepts they had imbibed, according as the variety of the climate, of the prevalent constitutional maladies, and of the dispositions and other local circumstances required, their operations would doubtless have either dissipated or moderated the various scourges that generally afflict those regions ; but as all, or almost all, in place of judiciously using their preconceived opinions, through a misunderstood, and we were about adding, a censurable *esprit de corps et de nation*, continue to profess there the maxims and precepts inculcated by their respective teachers for generations,* not only widely differing, but often opposed in circumstances, it grieves us to conclude this memoir by stating, that languid humanity has not yet derived in Egypt from this medical anarchy all that aid that it undoubtedly would have received if reason had spoken in place of pertinacity and self-love. For our part, after having studied at length and with accuracy the atmospheric and physical qualities of the country and its inhabitants, we are convinced that abstinence from food, sedatives, bland refreshing purga-

* The French physicians are fanatically attached to the system of BROUSSAIS ; the Italian, to that of TOMASSINI ; the English to those of CULLEN and BROWN ; the German, to those of SCHILLING and SPRENGEL, whose doctrine consists in magnetic, electric, and chemical processes ; all discordant in practice.

tives, and proportionate blood-lettings are in general the chief remedies that are suited for Upper and Middle Egypt, for the cure of sporadic diseases that occur there, and in Lower Egypt, a *compound* method, consisting of purgatives, diaphoretics, warm baths, anthelmintics, emetics, tonics, and antiseptics.

Such are the facts that indicate the actual state of Medical science in Egypt; and we consider that they demonstrate a conclusion, which we repute undoubted, as well relative to this particular subject, as to every other branch of innovation actually attempted in that country, viz. that they are as yet but a *rough sketch*, which cannot perhaps be brought to perfection but after a long period of time, when the REFORMER PRINCE who has commenced the undertaking, and his magnanimous son, IBRAHIM Pacha,* renowned as well for his rare talent for governing as for his military qualities—when both, we say, having laid aside thoughts of war, by which they have been hitherto distracted, will exclusively dedicate their cares to the internal regime of the State, proud one day of having added a family to the illustrious circle of civilized nations.

ART. VII.—*Note on the dissection of the Arctonix Collaris, or Sand Hog.* By GEORGE EVANS, ESQ. late Curator to the Asiatic Society.

This curious little animal, for some time a living inmate of the Society's Rooms, having died suddenly on the night of the 20th January, apparently from the effects of cold, the following particulars of its dissection are offered to the notice of the Society.

In the length of the body it measured one foot, the head from the snout to the occiput five inches, and the tail, which is thin, straight, and pendulous, somewhat exceeded five inches.

The animal proved to be a young female, and had barely completed its second dentition. The only peculiarity worthy of notice, beyond what is already known and received, as far as regards its external organization, is a caudal pouch directly under the origin of the tail (something similar to what is found in the Badger,) but quite distinct from, and wholly unconnected with, the anus or genital organs. The sac is formed by duplicate folds of the common integuments, having a lining of naked membrane, secreting a brown unctuous matter, not unlike cerumen, or wax of the ear; the use of this peculiar structure and se-

* Eldest son of the Viceroy, born in Macedon, three miles from Cavella—a son unmatched in his obedience to his father.